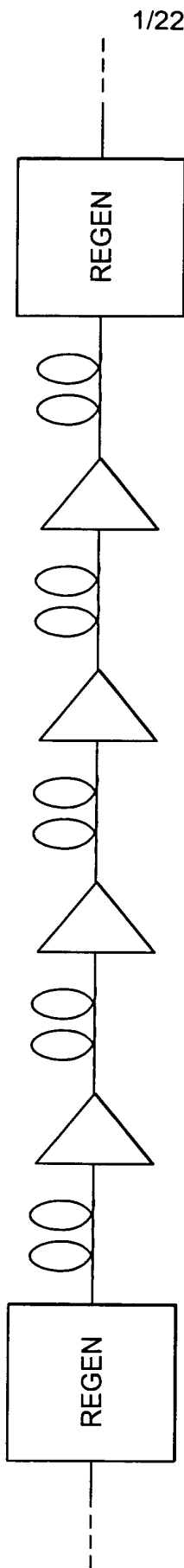


100

OPTICAL
AMPLIFIER



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FIG. 1

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200

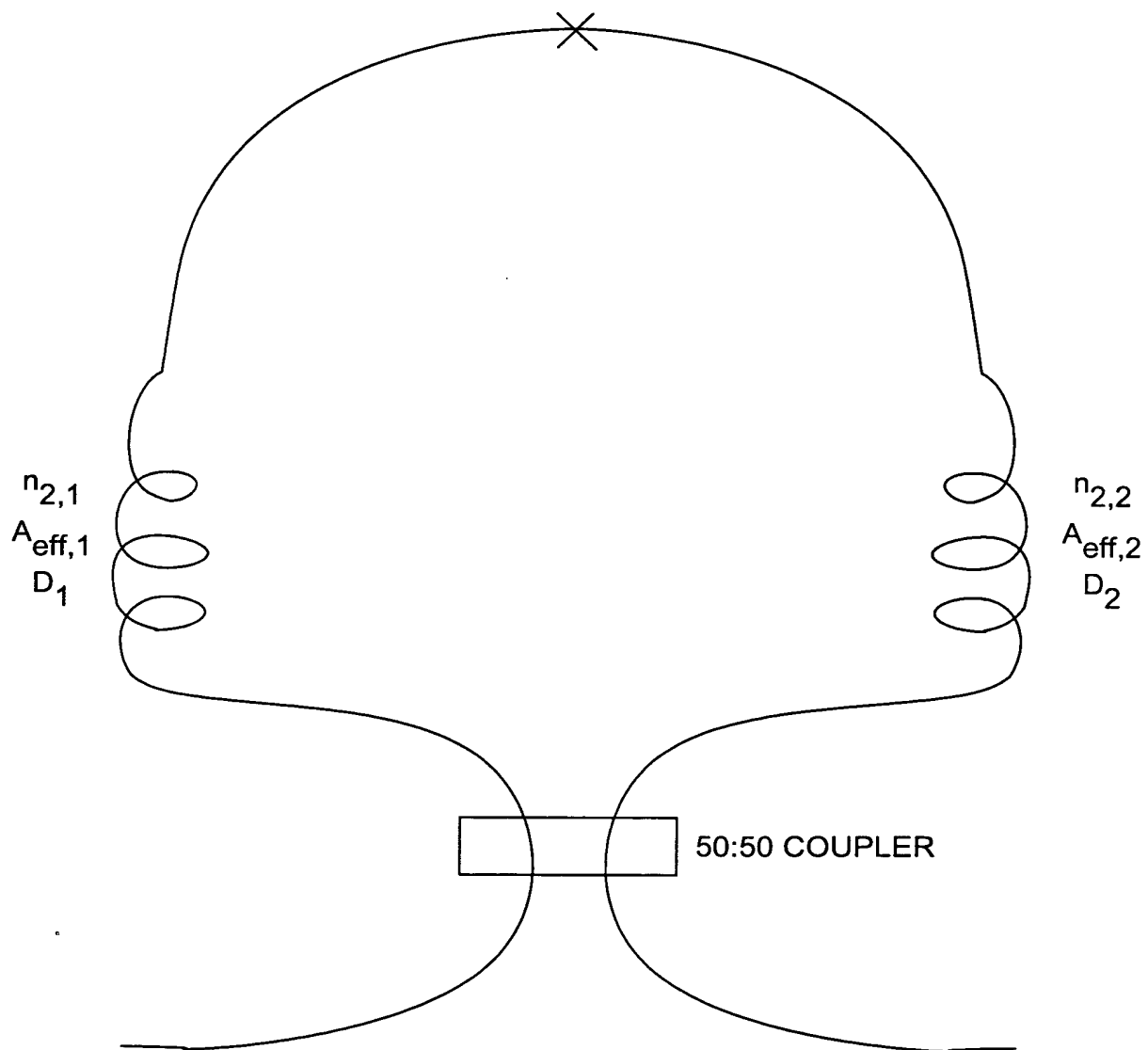


FIG. 2

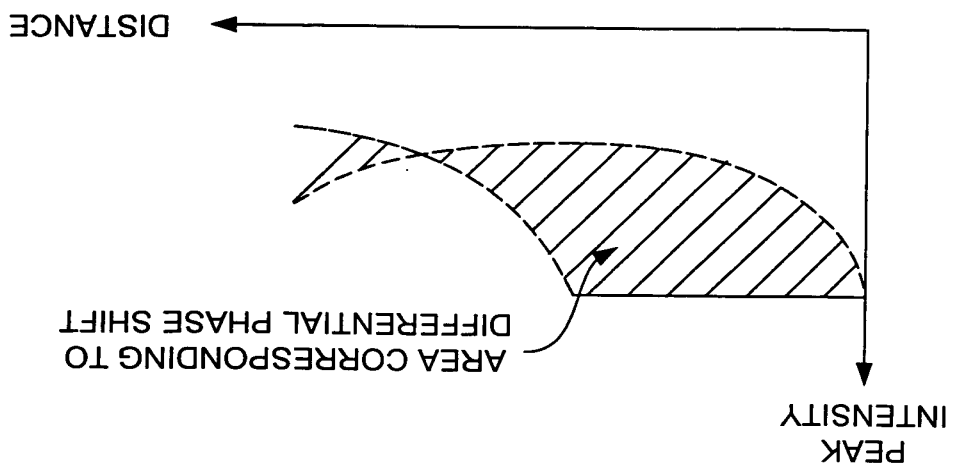
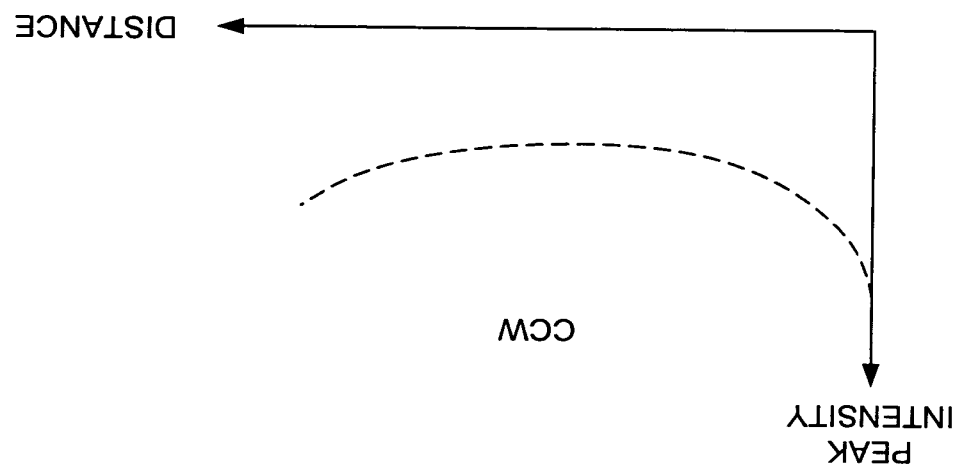
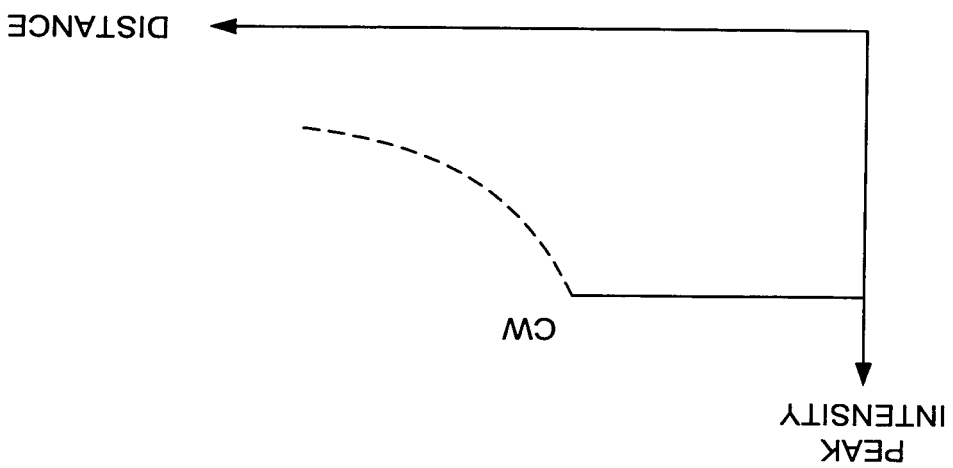
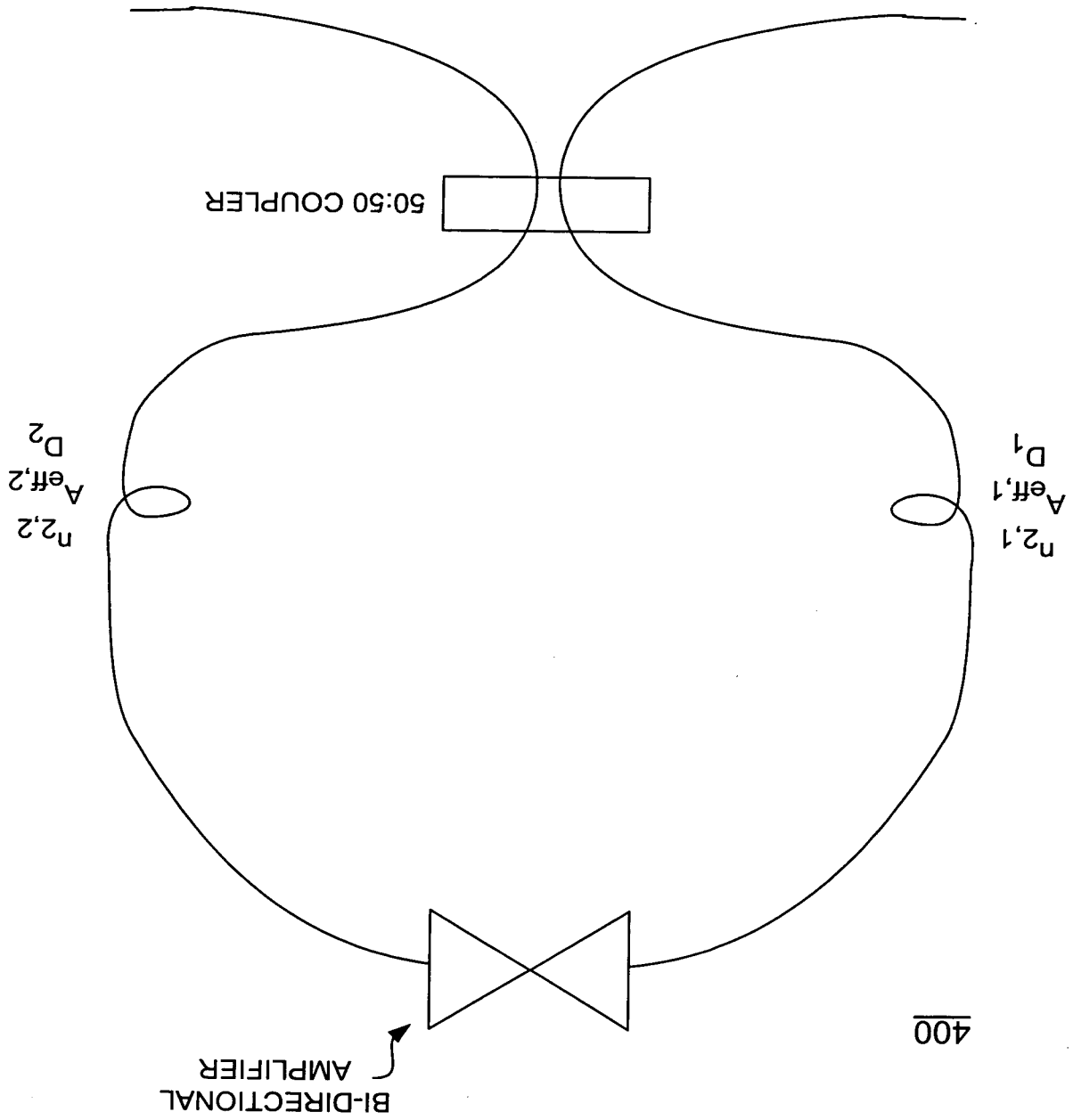


FIG. 4



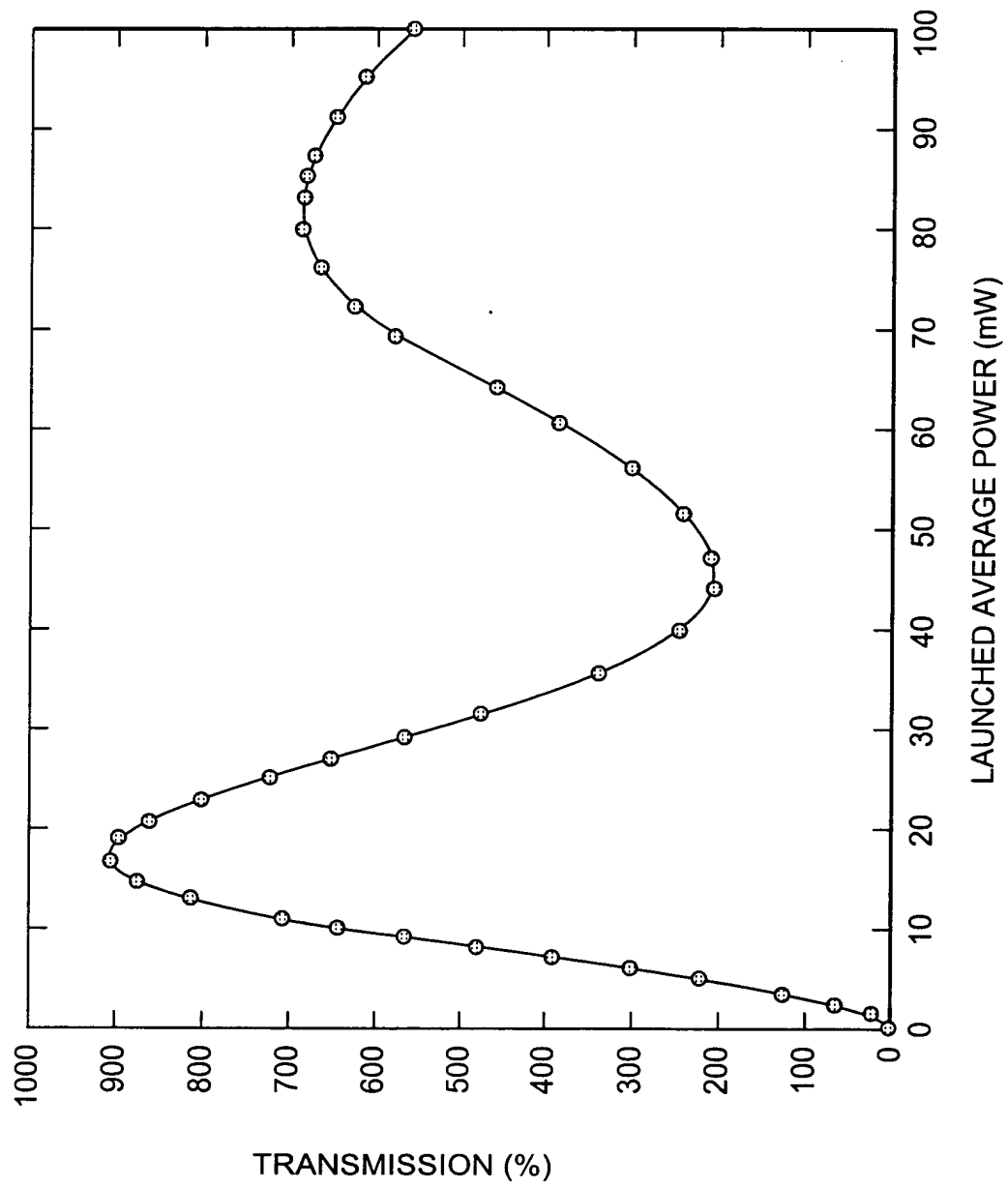
500

FIG. 5

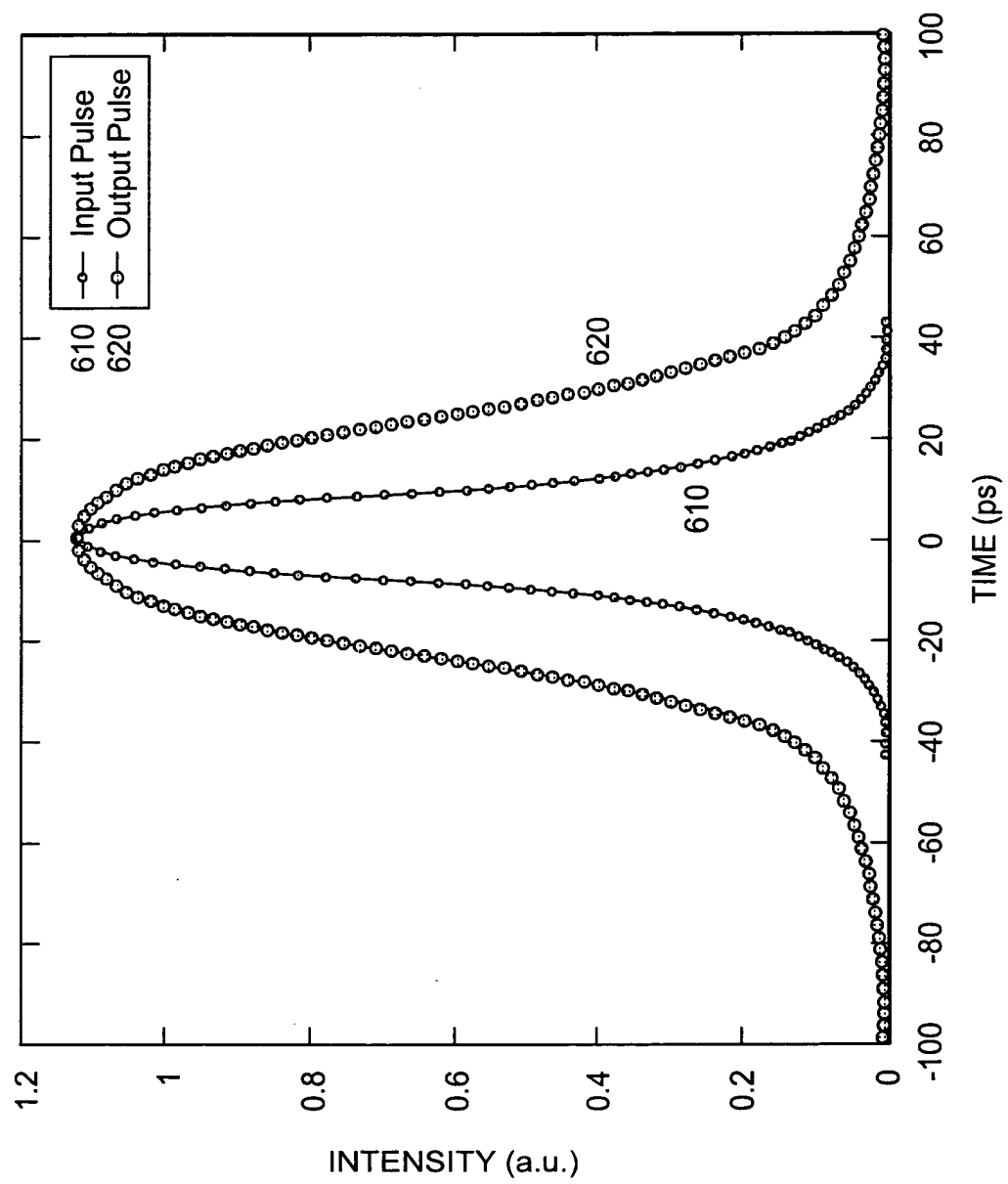


FIG. 6A

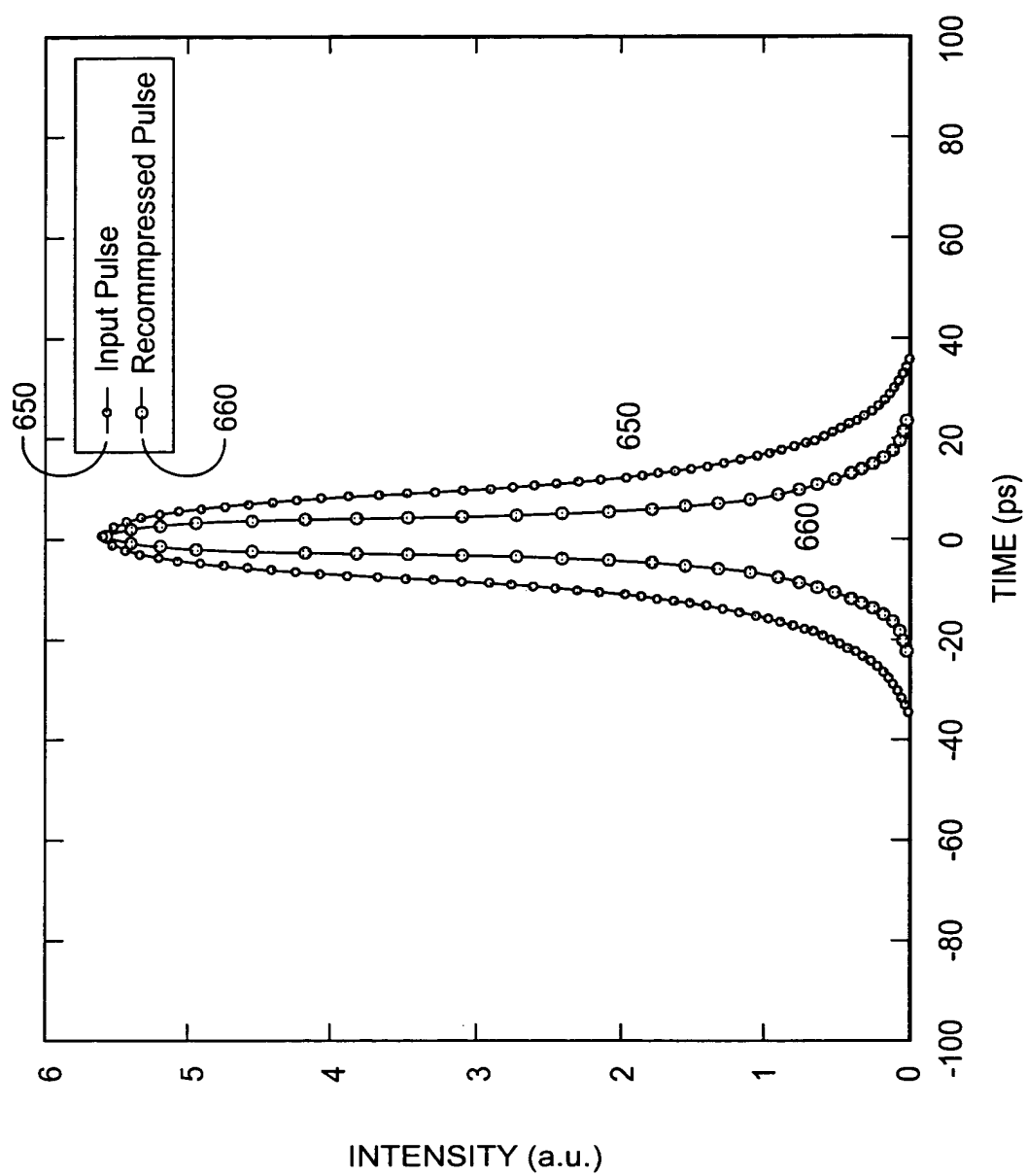


FIG. 6B

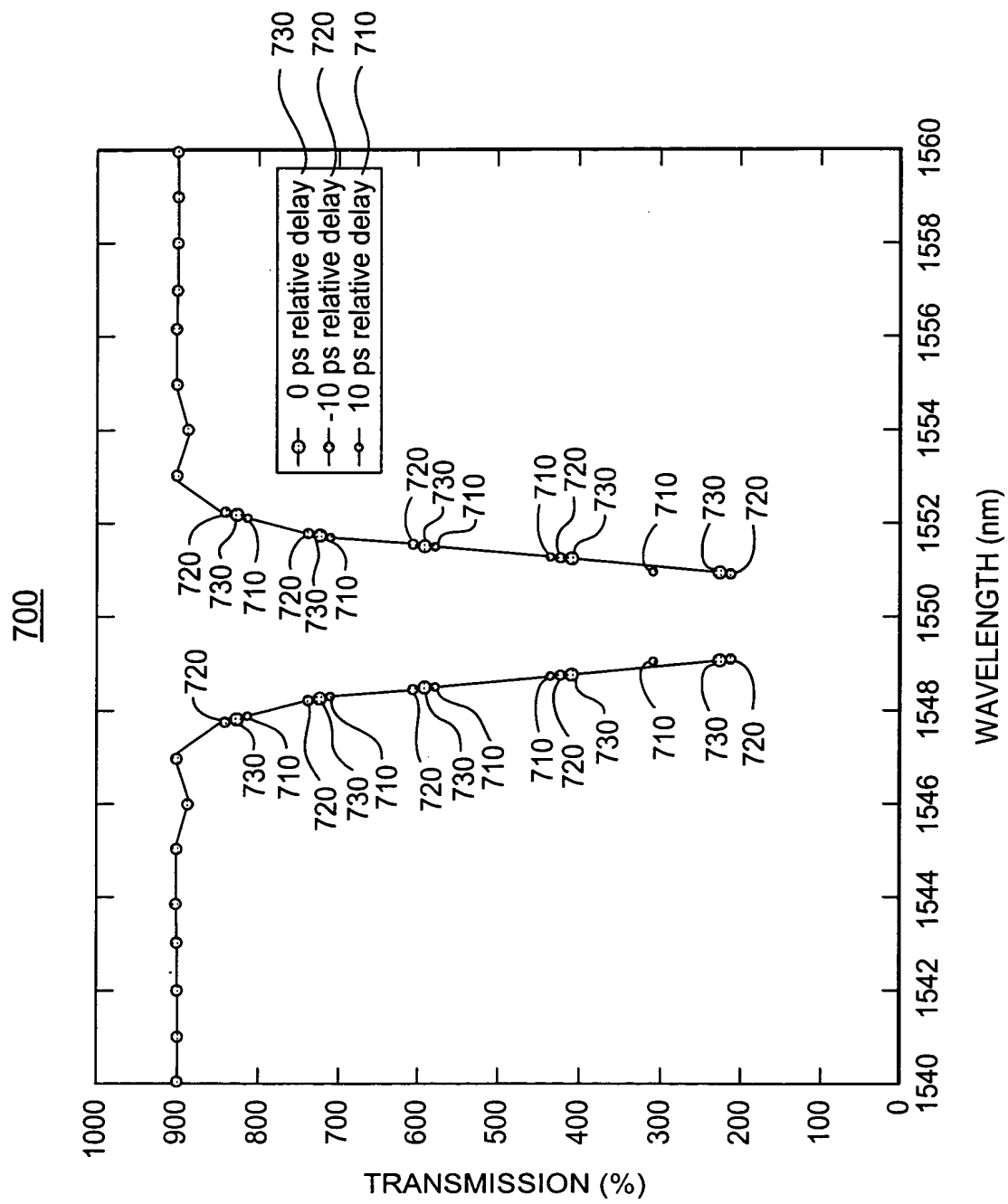


FIG. 7

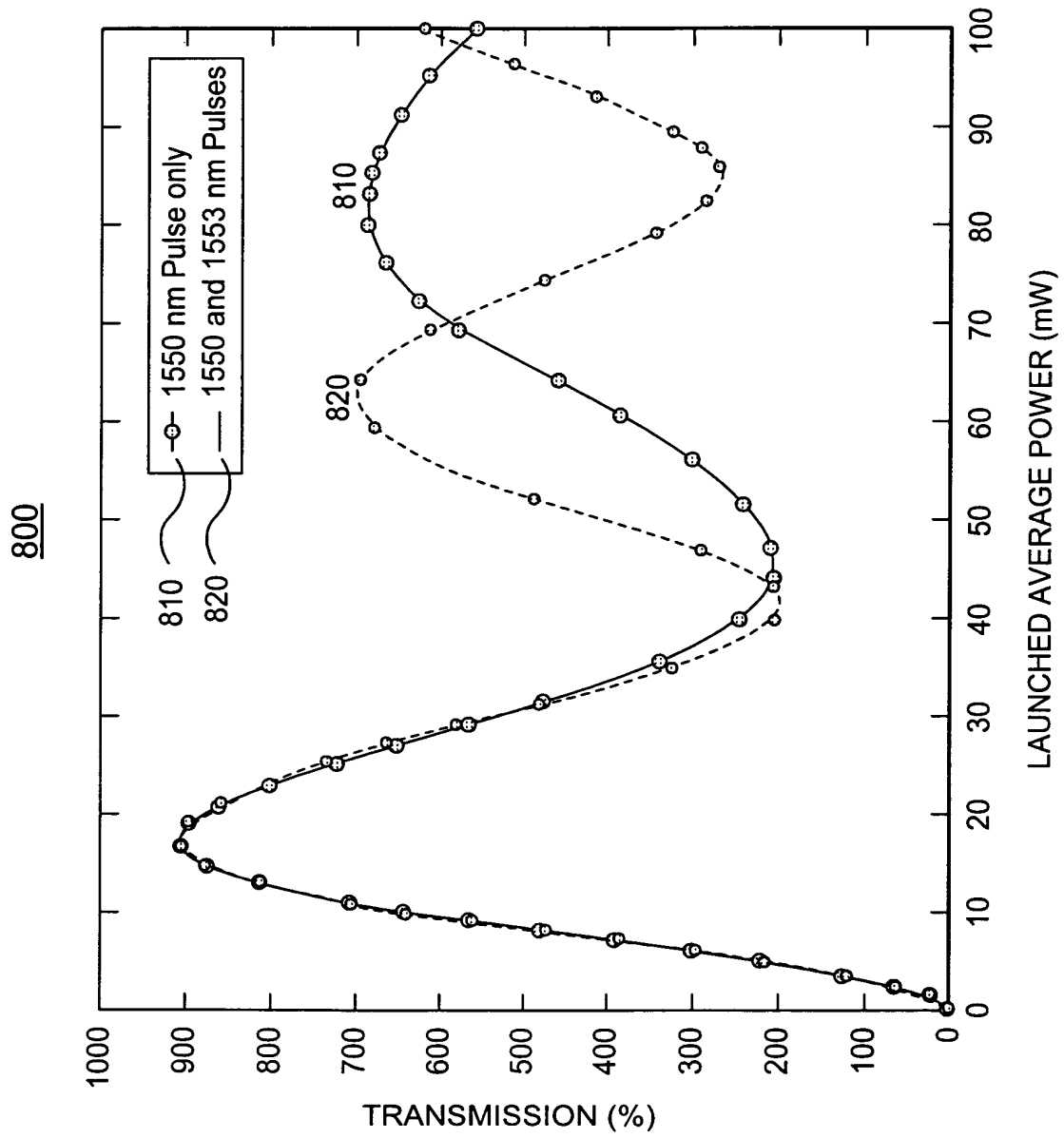


FIG. 8

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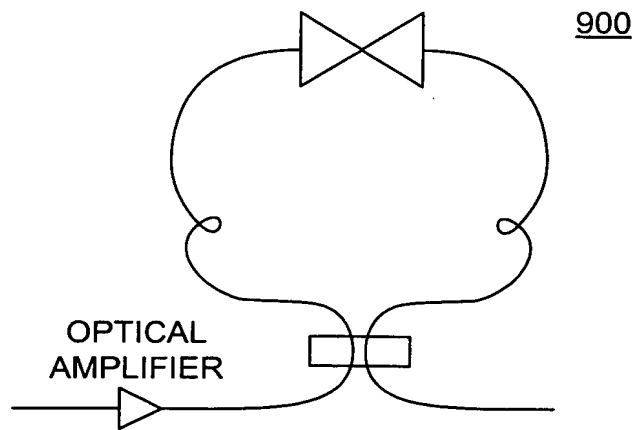


FIG. 9A

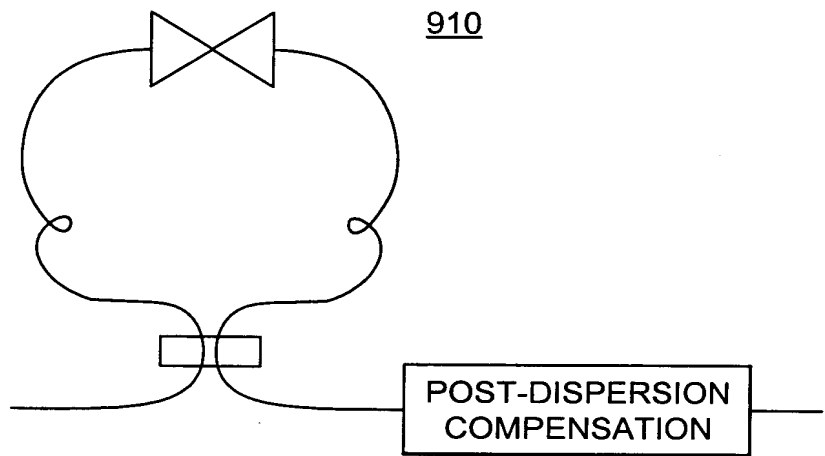


FIG. 9B

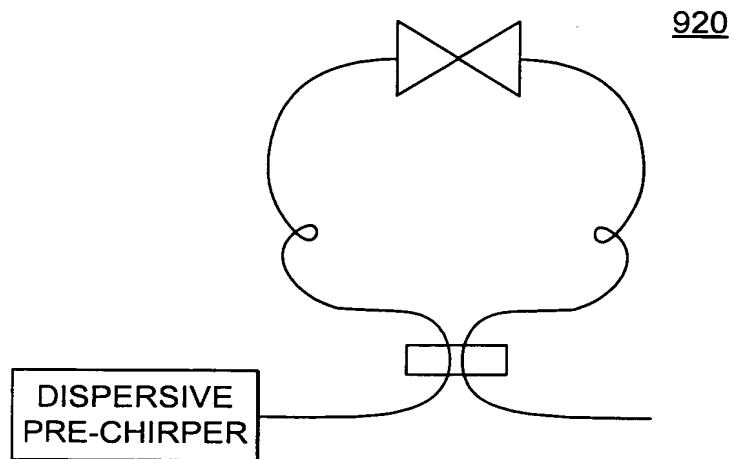


FIG. 9C

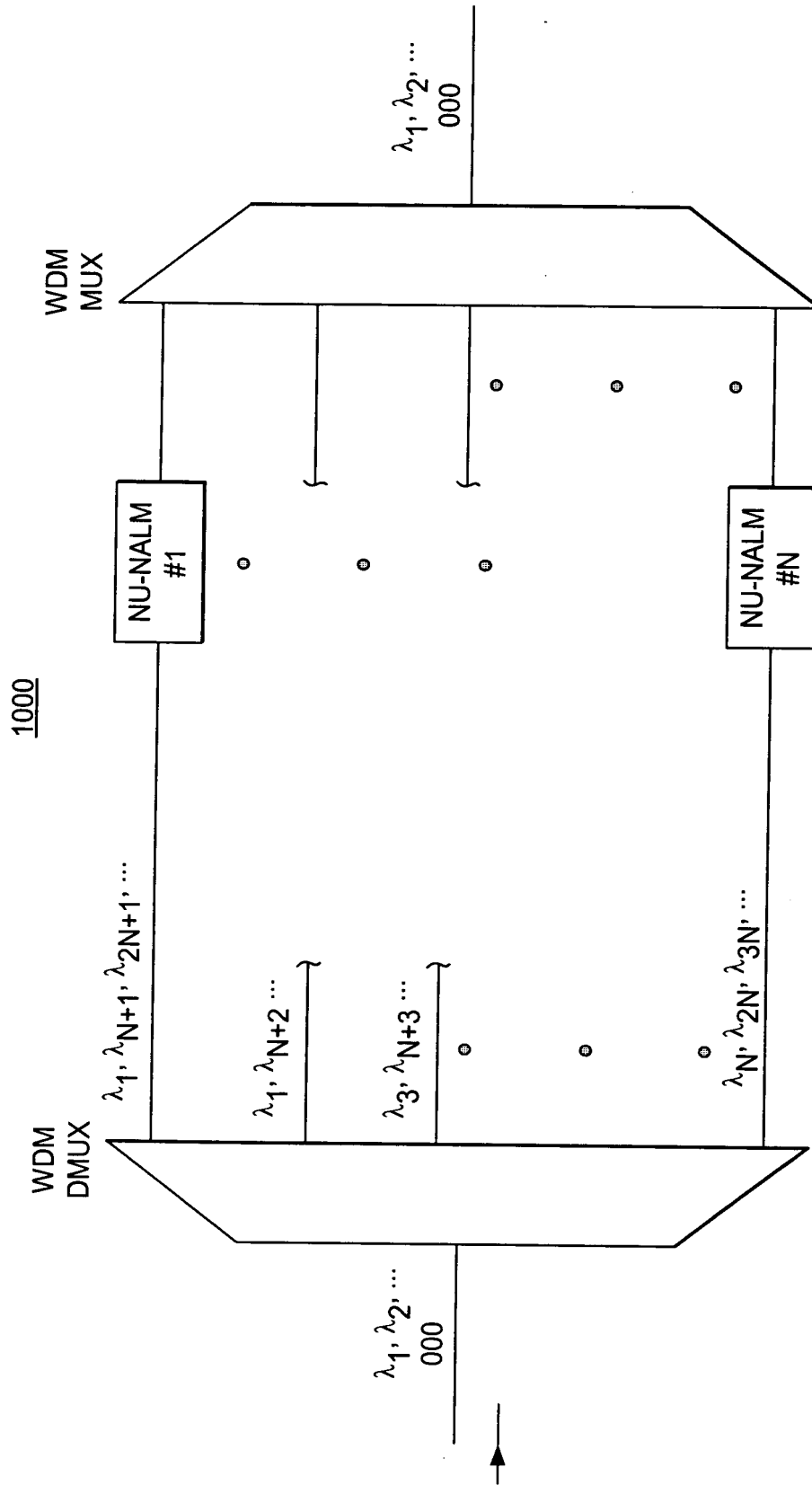


FIG. 10

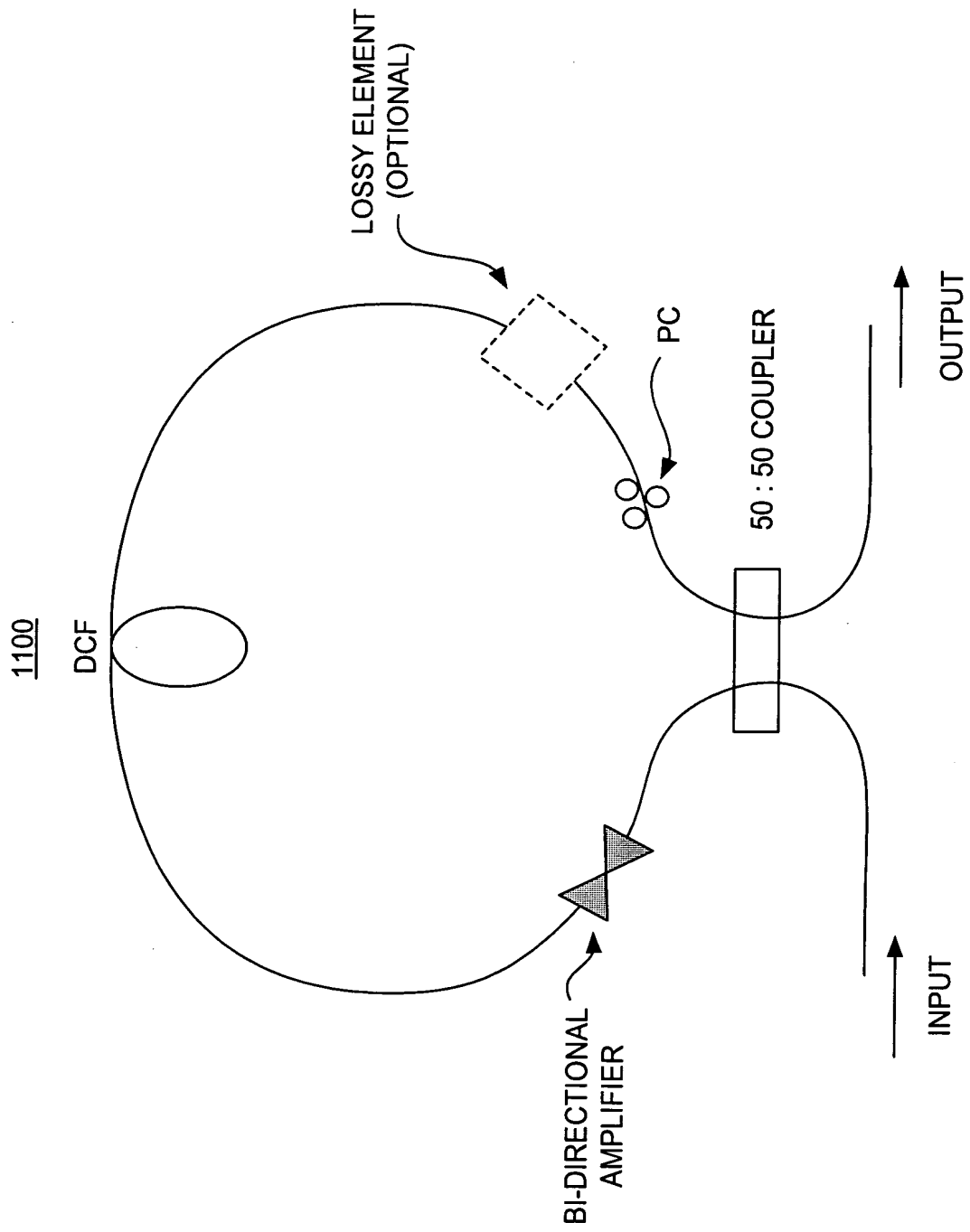


FIG. 11

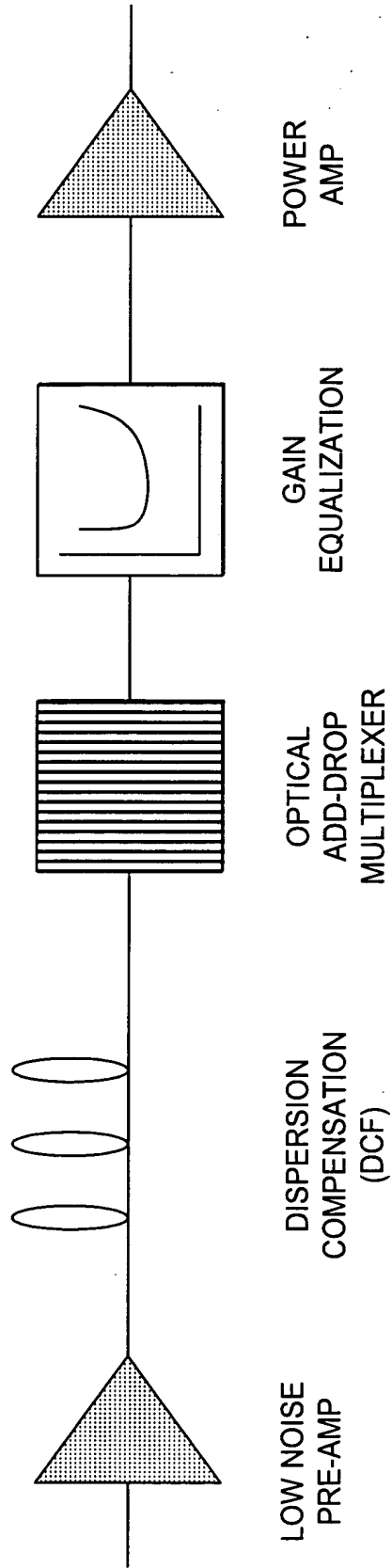
1200

FIG. 12

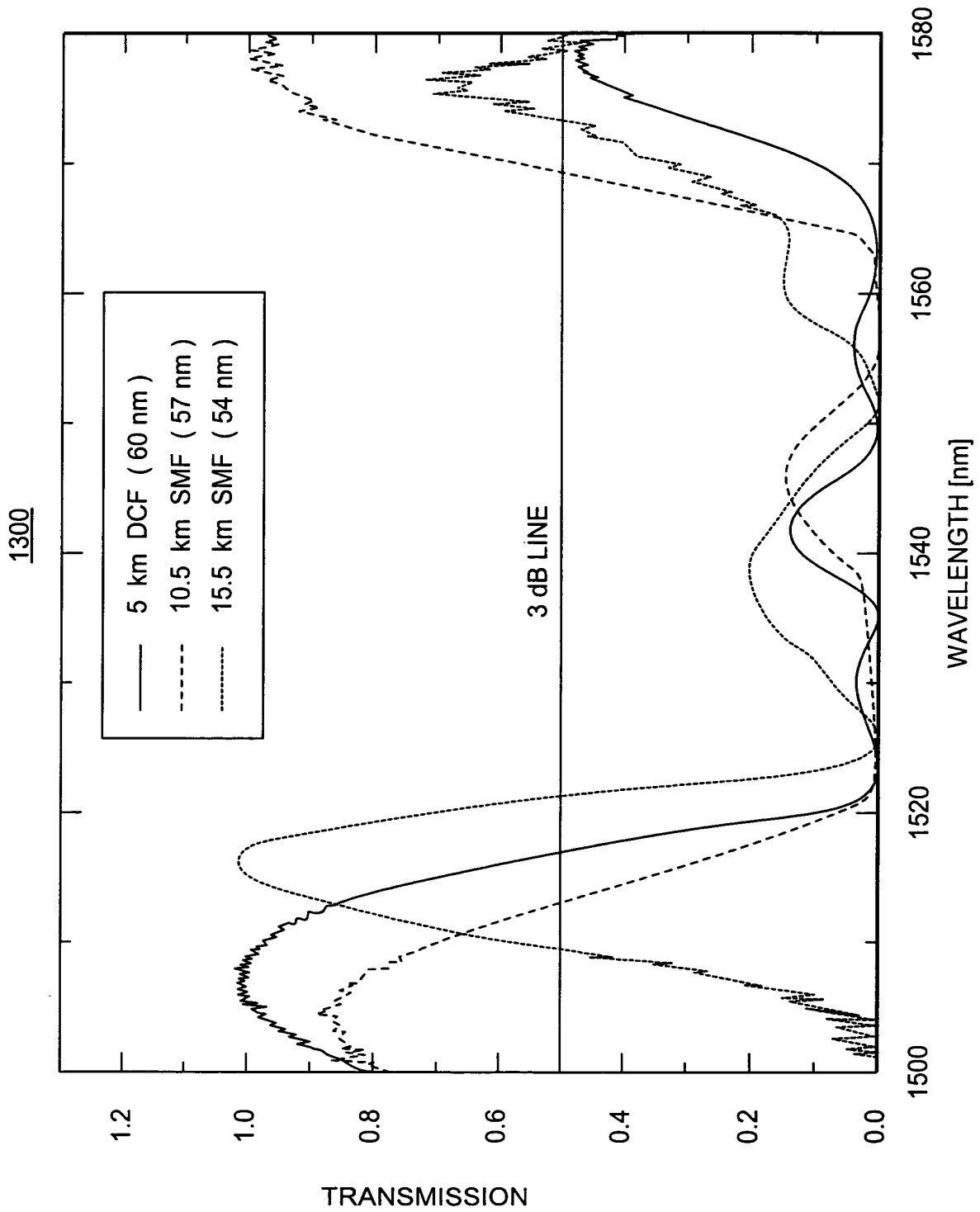


FIG. 13

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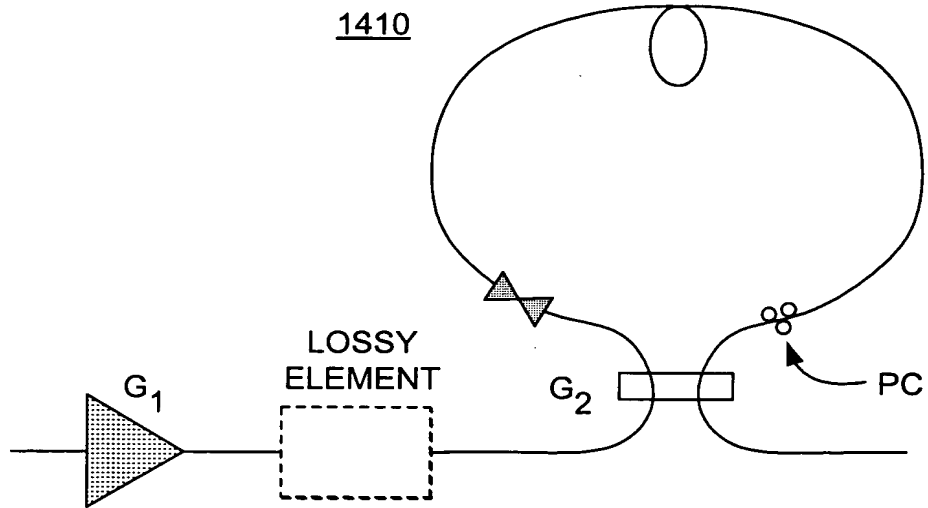


FIG. 14A

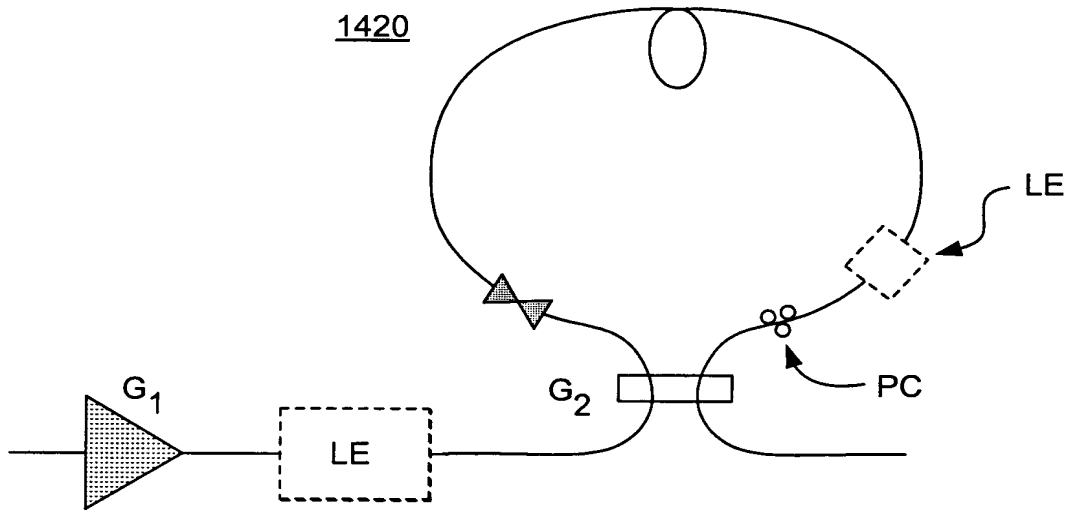


FIG. 14B

P_{in} (dBm)	G_1 (dB)	G_2 (dB)	P_{out} (dBm)
-11	0	30	9.18
-11	5	25	9.17
-11	10	20	9.16
-11	15	15	9.10

1430

FIG. 14C

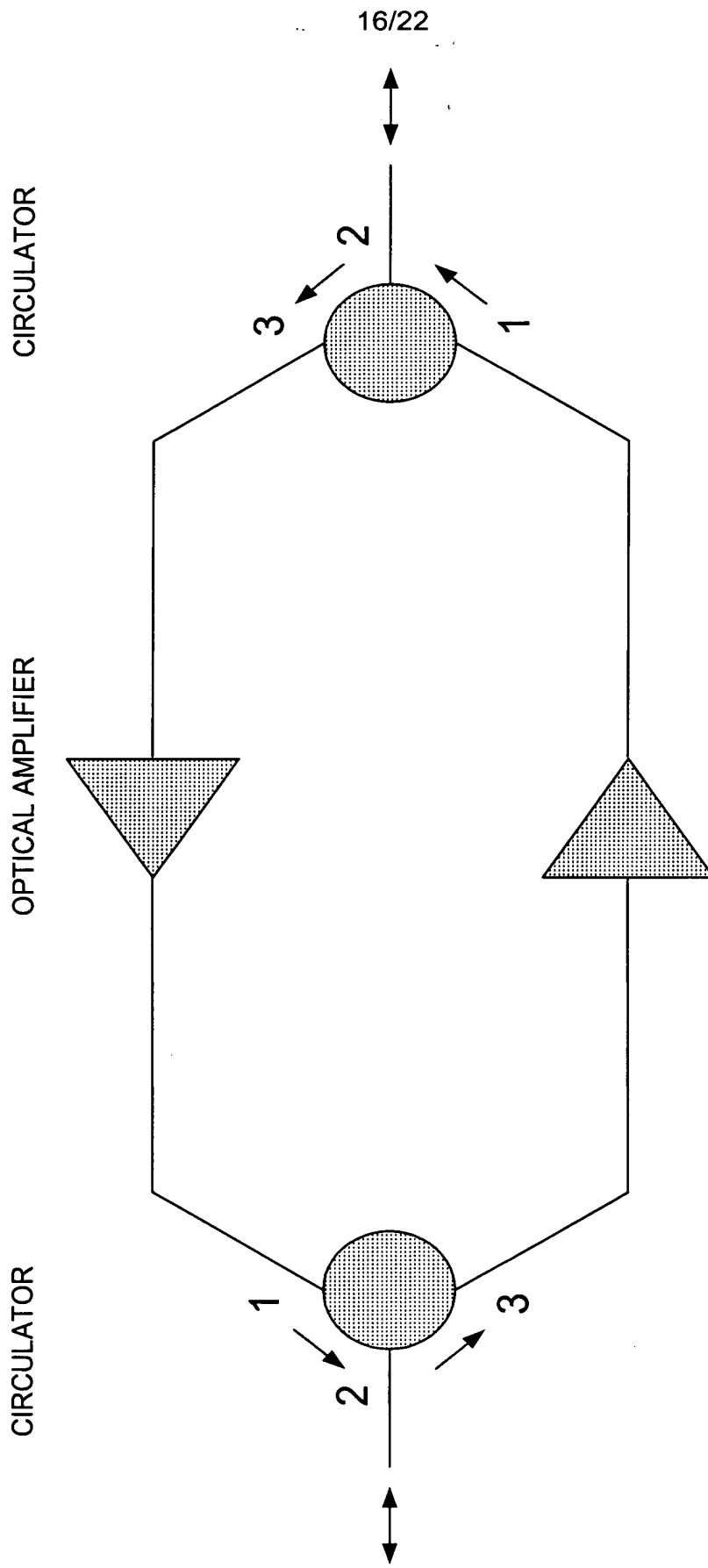


FIG. 15

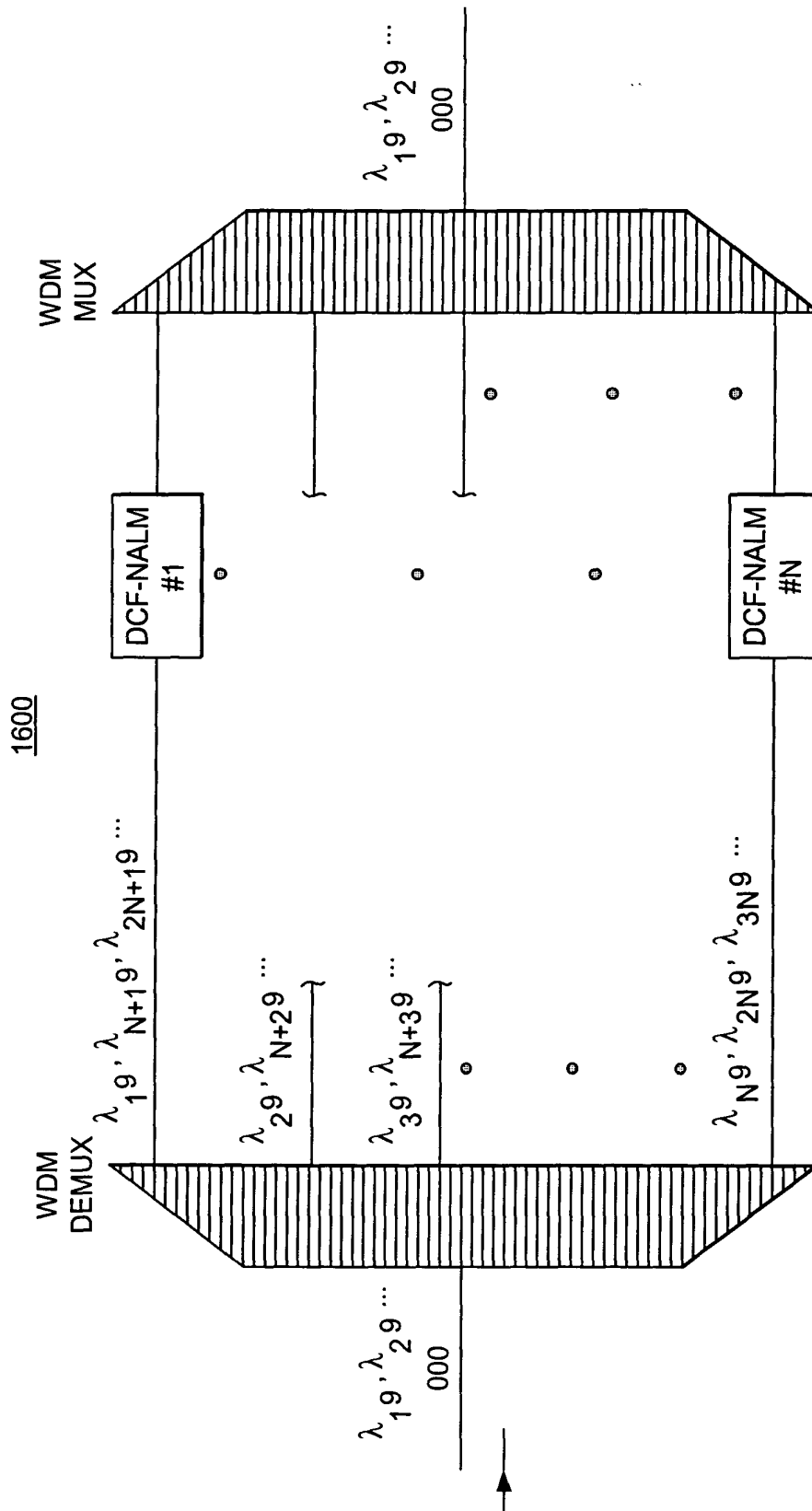


FIG. 16

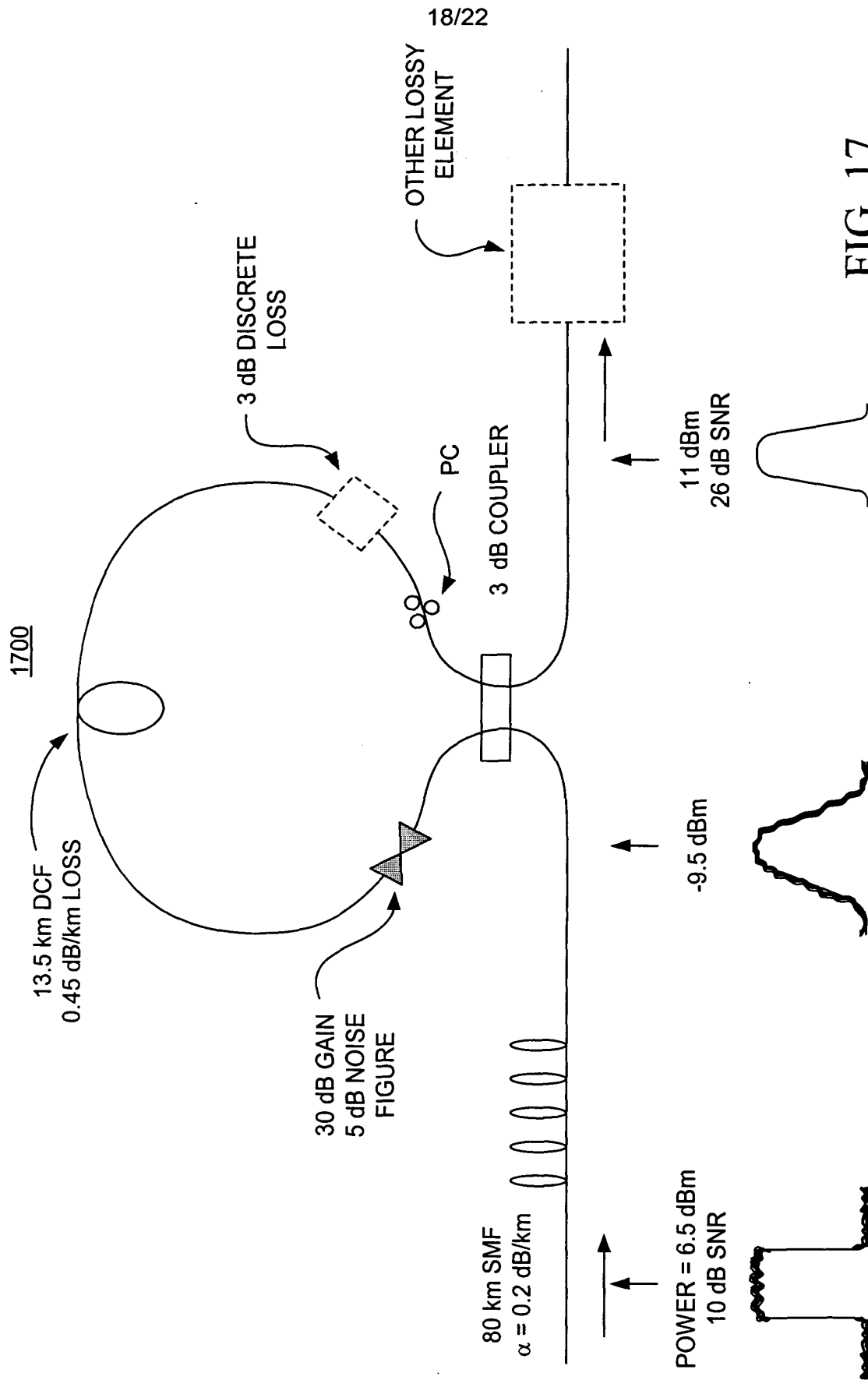


FIG. 17

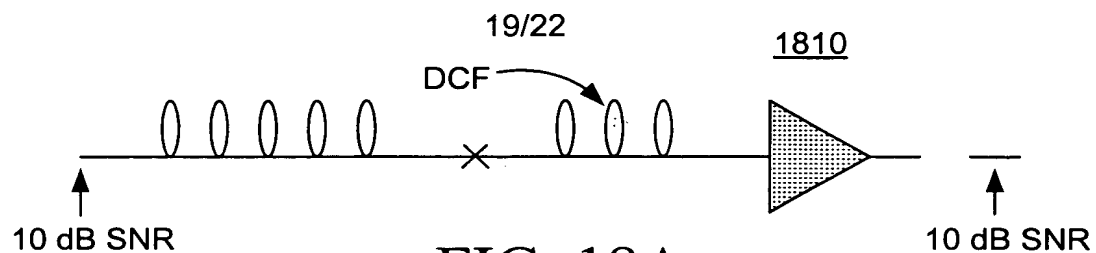
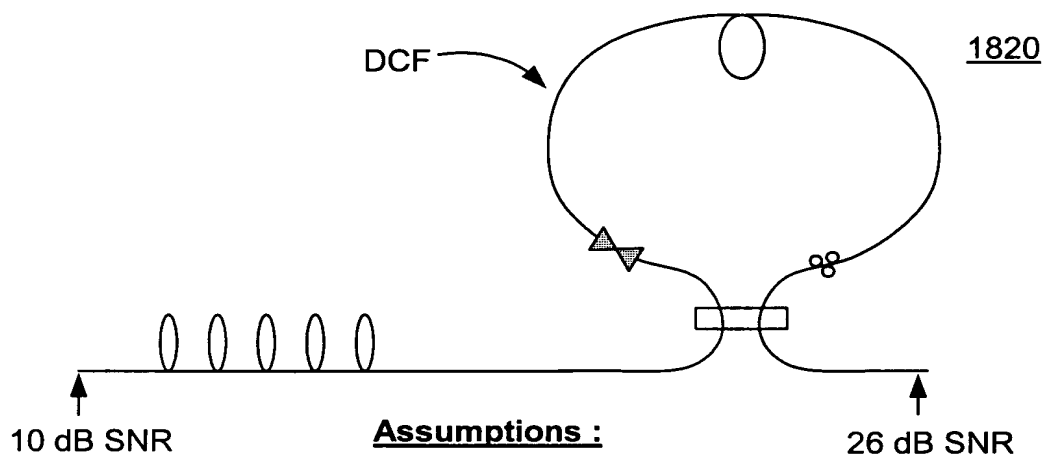


FIG. 18A



Assumptions :

**-10dB input SNR
(5 GHz bandwidth)
-5 dB amplifier NF**

Results :

16 dB improvement in SNR

FIG. 18B

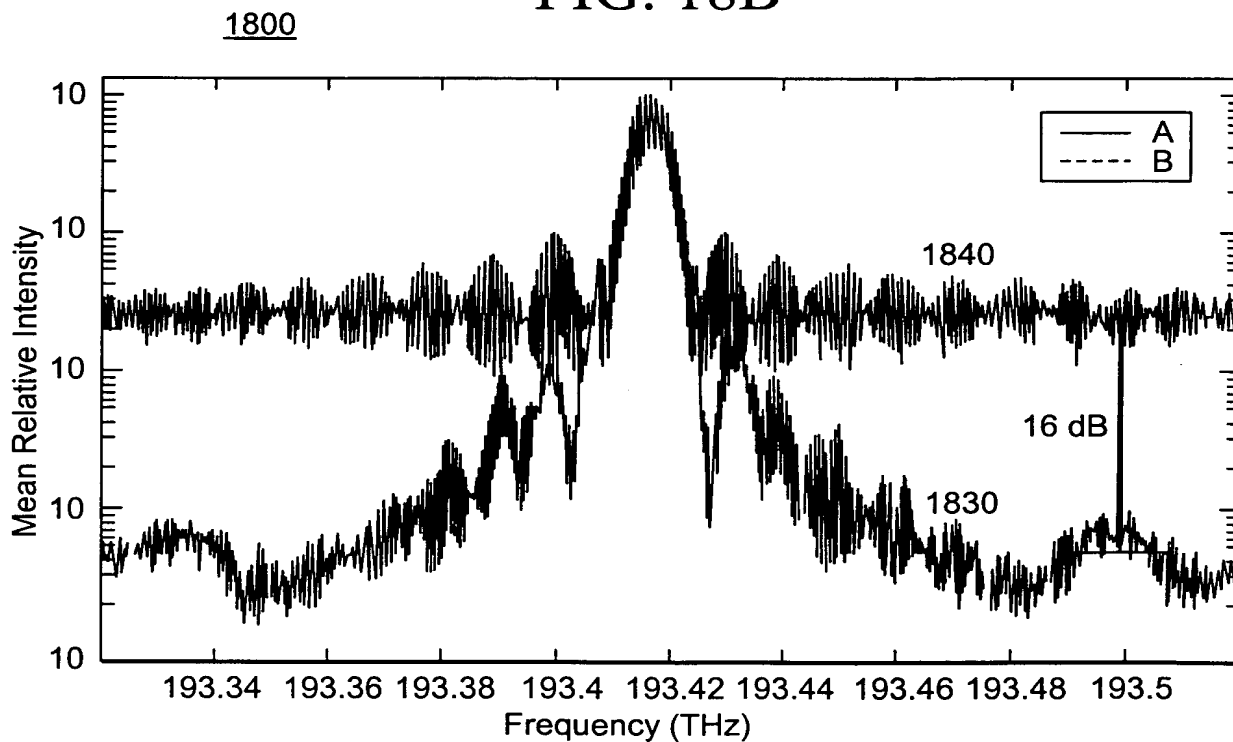


FIG. 18C

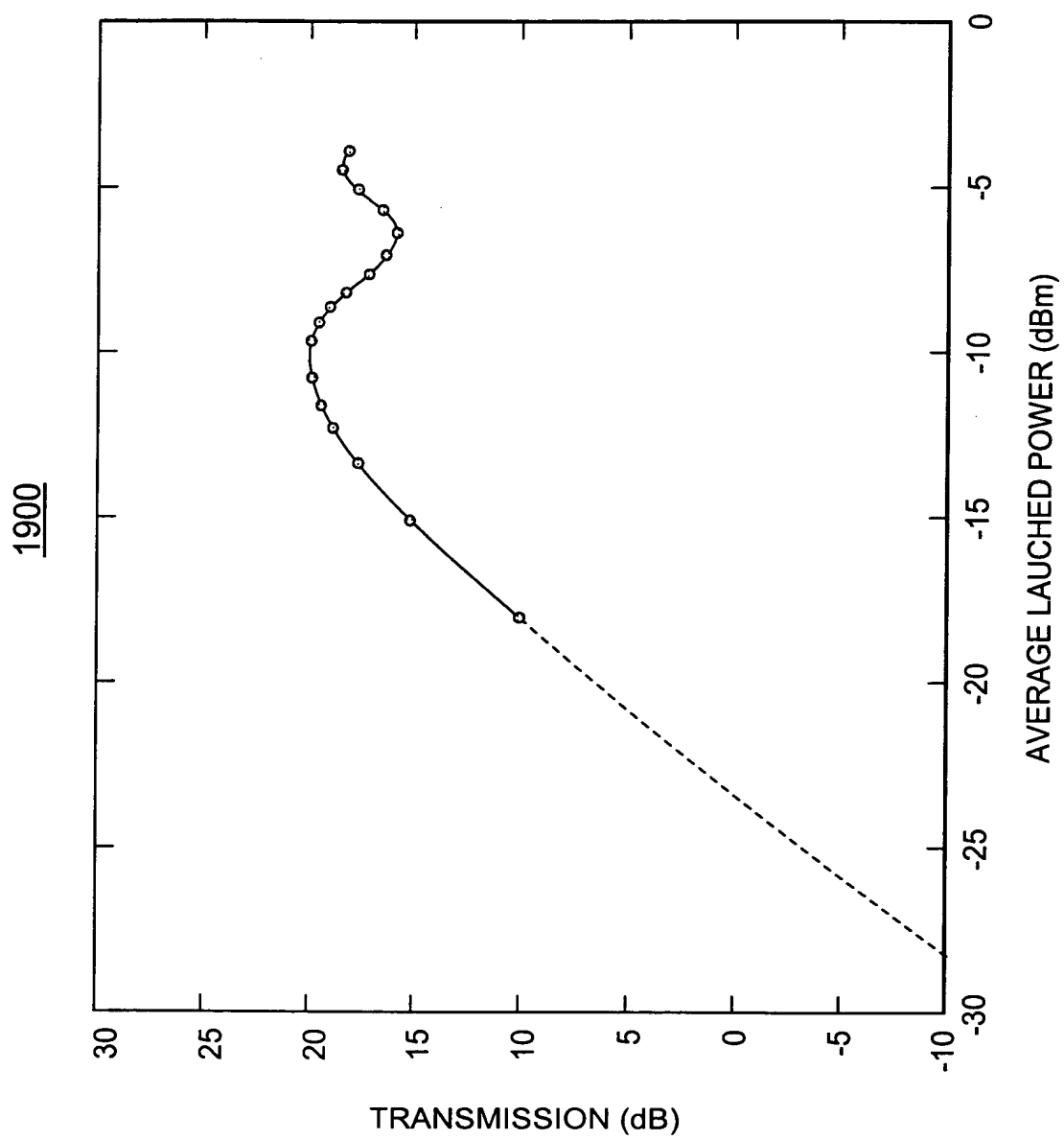


FIG. 19

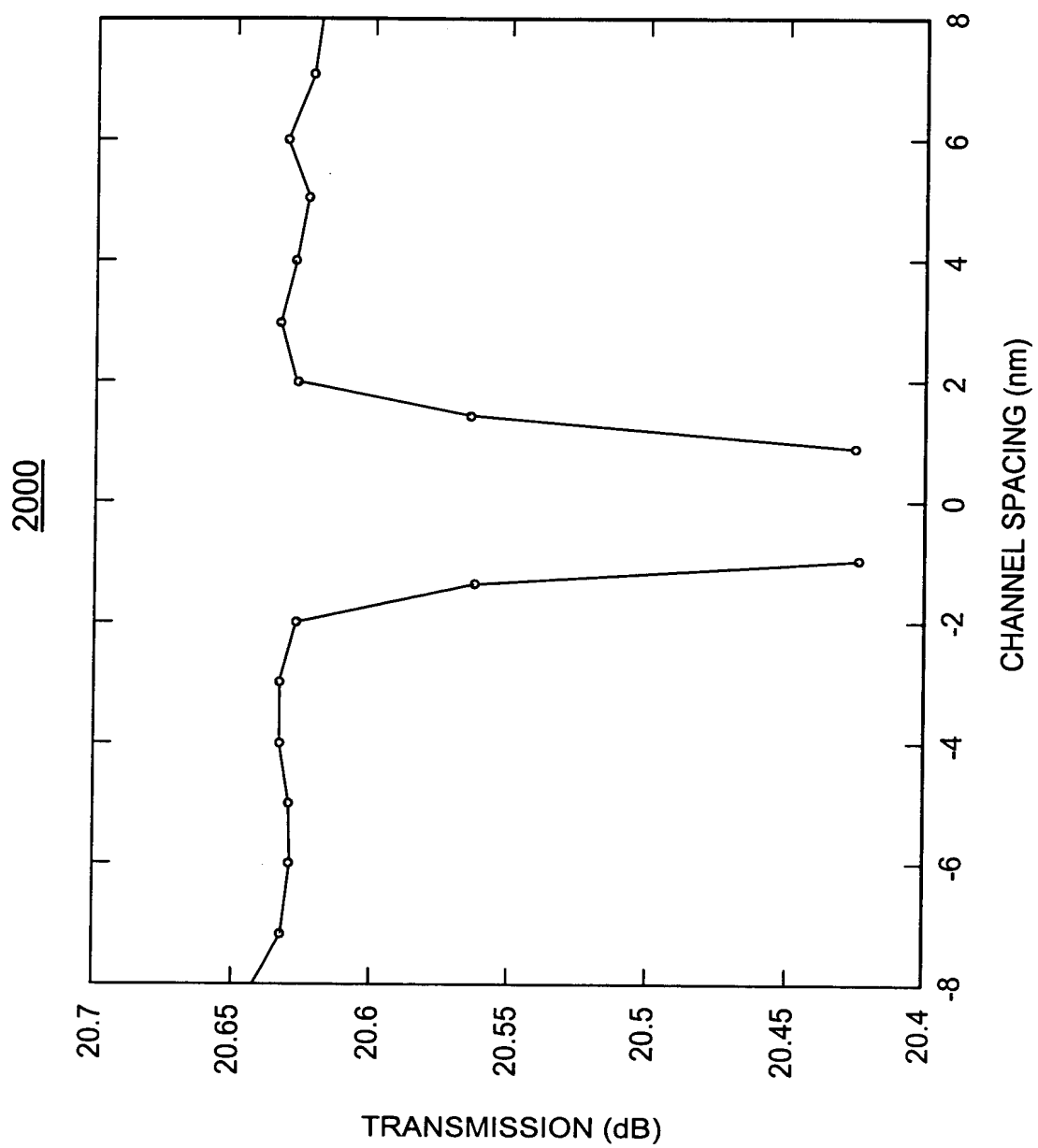


FIG. 20

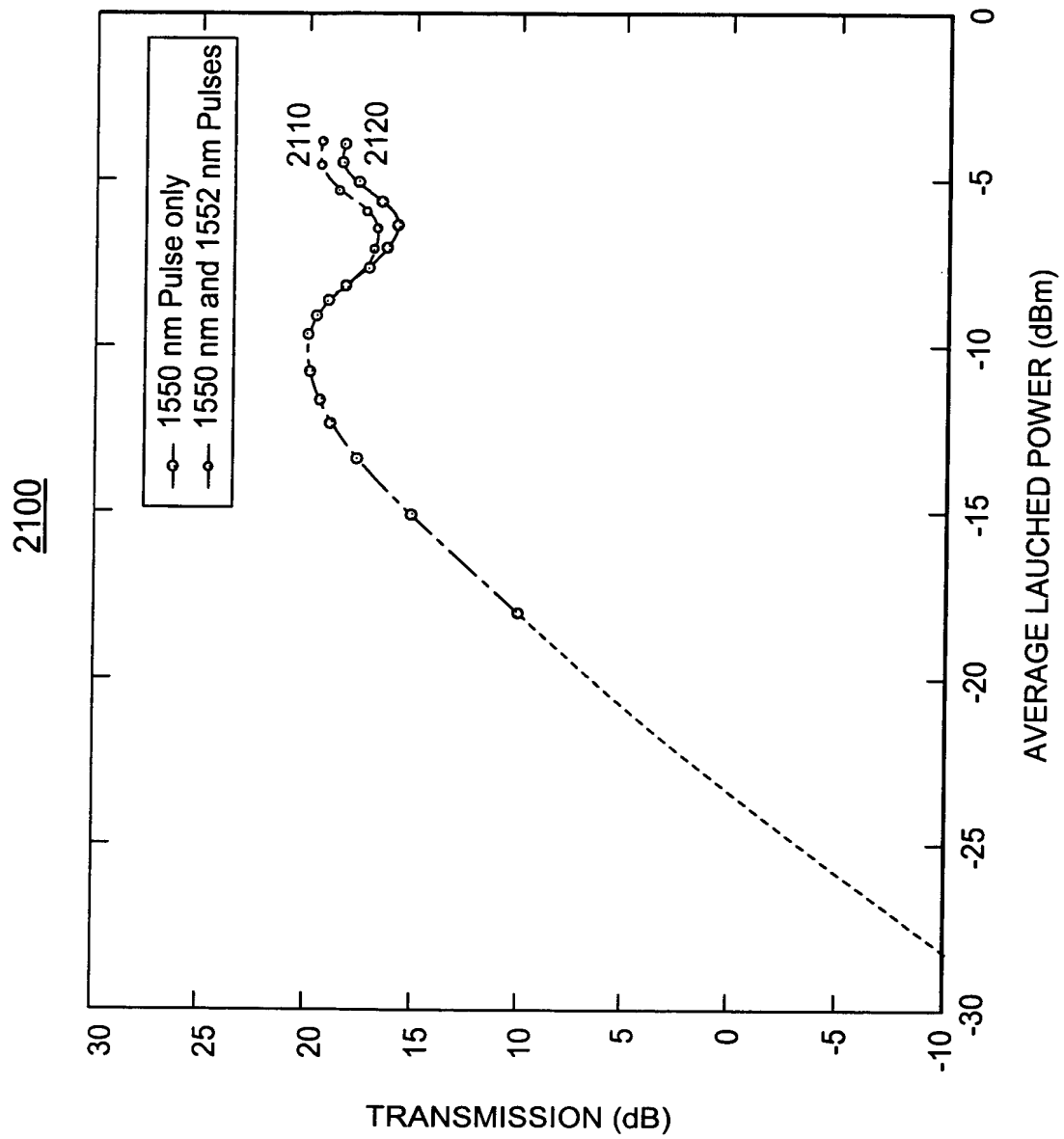


FIG. 21